

OMA 2nd Submission to Ontario's Long-Term Care COVID-19 Commission

December 16, 2020

Introduction

The COVID-19 pandemic has left residents and staff¹ of LTC homes (LTCHs) particularly vulnerable to COVID-19. This vulnerability was coupled with terrible uncertainty in LTC homes during the initial wave of the pandemic. This uncertainty included risks to staff, unclear and changing guidance, confusion about moving between LTC homes, Personal Protective Equipment (PPE) shortages, and for physicians particularly, concerns about transmission to other vulnerable patients in their practice. Currently in wave 2 we continue to see devastation to those in LTC. To date, 63% of all deaths due to COVID-19 in Ontario have been in Long-Term Care (LTC). This confirms that system-wide issues in LTC must be properly understood and addressed.

The Ontario Medical Association (OMA), on behalf of Ontario's physicians, is keen to support the work of Ontario's LTC COVID-19 Commission. Further to the interim submission we provided in October which offered some immediate strategies to address the pandemic, we want to take this opportunity to provide the Commission with an analysis of issues that have challenged the LTC sector and identify some recommendations for improvement moving forward. This is an opportunity to not only reflect on COVID-19, but also issues that have challenged the LTC sector for many years. While this document is written under the context of COVID-19, some of these issues pre-dated the pandemic and without systemic change will extend beyond the pandemic.

This document builds upon the OMA's preliminary advice and interim recommendations and focuses on five key areas: COVID-19, Public Health Advice, Medical Management for COVID-19 & Access to Specialized Care, Infection Prevention and Control, Health Human Resources, and Long-Term and Healthcare System Issues. In this report we will discuss key challenges that LTC has faced throughout the pandemic and outline recommendations for how LTC can be improved and delivered moving forward to better support residents, LTC staff and the health system. Key learnings from the OMA survey discussed below, and other engagement with physicians, other stakeholders and jurisdictions have been considered in our recommendations.

¹ "staff", in relation to a long-term care home, means persons who work at the home,

⁽a) as employees of the licensee,

⁽b) pursuant to a contract or agreement with the licensee, or

⁽c) pursuant to a contract or agreement between the licensee and an employment agency or other third party; ("personnel") Defined in the Long-Term Care Homes Act (2007) - https://www.ontario.ca/laws/statute/07108#BK3

OMA Led Physician Survey

To better understand the issues to inform recommendations, the OMA surveyed physicians that work in LTCHs and/or deliver care to LTC residents. Although physicians provide care in other congregate care settings, the focus of this survey pertained exclusively to LTC homes regulated under the Long-Term Care Homes Act (2007)².

Through the survey, the OMA was able to gather information from frontline providers to understand how LTC has been delivered throughout the pandemic as well as the LTC policies that can affect the health system. We also asked the respondents to rank their top priorities to be included in this submission. 140 physicians responded to the survey. The majority of respondents were family physicians, and those who practice primarily in LTC/care of the elderly. Physicians also self-identified as practicing in emergency medicine, geriatric medicine, palliative care, psychiatry as well as other specialty areas. Sixty five percent of the survey respondents indicated that they work in a LTC facility and in a variety of roles (See Table 1). Of those respondents, 57% indicated that they work in more than one facility. Homes where respondents primarily provide their medical services had a vast range of residents residing within them [from 49 and under residents (13%), 50 to 99 residents (27%), 99 to 100 residents (37%), and 200 and more residents (21%)]. When looking at the COVID-19 pandemic specifically, 49% of respondents reported an outbreak in the first wave of the pandemic and 40% have experienced an outbreak during the second wave in the LTC facility where they work.

Table 1

Role in LTC Facility ³	% of Respondents who work in LTCHs
Attending Physician	48
Medical Director	33
Consulting Physician	12
Other	7

Public Health Advice, Medical Management for COVID-19 & Access to **Specialized Care**

Public Health Advice:

Virtually all physicians working in LTC homes and/or caring for residents reported that they sought out advice from public health during the pandemic to help guide and facilitate appropriate responses to safeguard the lives of LTCH residents. This was especially important

² https://www.ontario.ca/laws/statute/07l08

³ See Appendix A for description of roles. Medical Director and Attending Physician roles are defined under the Long-Term Care Homes Act (2007)

given the many unknowns during the first wave of the pandemic related to the treatment and management of people with COVID-19 or suspected of having the virus and the tragic impact the disease was having on residents of LTCHs.

To better understand the effectiveness of public health advice received we explored through the survey whether the roles and responsibilities at the various public health tables including advice from provincial, regional, and local tables were clear, and whether communications were timely and aligned.

Respondents noted that roles and responsibilities of various tables were not clear and communication was not always aligned, nor timely. Specifically, physicians noted that during an infectious disease outbreak guidance and messaging that is consistent across the province, rather than from individual public health units, would be more effective. Additional guidance that would prove effective during an infectious disease outbreak includes direction on when to attend work if practising at multiple LTC homes, and further clarity on what category in provincial directives physicians fall under. Finally, guidance on when essential physician visits versus virtual visit are appropriate would be valuable.

Recommendation: The province should streamline the number of public health tables providing advice to LTCHs to provide for consistency and clarity. It should also clarify roles, responsibilities, and accountabilities of these tables to improve consistency in the advice provided and enhance the timeliness of communications. For example, in the case of pandemic advice it should be centralized and provided at the provincial level, whereas in a non-pandemic situation, localized infectious disease outbreak advice should be at the local or regional level.

Recommendation: The province should establish a Chief Medical Officer of Long-Term Care for Ontario. This new role should work collaboratively with Ontario's Chief Medical Officer of Health, and have overall responsibility and accountability for the public health advice directed to long-term care homes.

Medical Management of Residents & Access to Specialized Care:

Respondents identified numerous issues related to the medical management of residents with COVID-19 as well as broader medical management issues for residents of LTC homes. While these issues were amplified during the pandemic, according to respondents, many are longstanding issues. Examples include problems that occurred because of the lack of guidance to facilitate smooth transfers of residents to hospitals from LTCHs and back to the LTCHs. It was noted by survey respondents that residents were arriving at hospitals without the relevant / adequate medical information needed to facilitate care at the hospital, and in some cases, residents were transferred despite inconsistency with the resident's goals of care. Residents were sometimes transferred to hospitals because of inadequate staffing and limited access to medical equipment that is needed to provide care and medical treatment such as IV, labs and xrays. In addition, it was noted that when residents were repatriated to the LTCH, often the discharge summary did not accompany the resident (arrives later, up to a week or month in some cases) or is inadequate to guide treatment. Discharges that occur on nights and weekend are noted to be particularly problematic because of decreased LTC staff, and the ability to access prescribed medications is more limited, which causes greater distress to residents.

The need for two-way and timely communication between hospitals and long-term care homes was emphasized by survey respondents. Specifically mentioned is the need for integrated EMRs, as well as the need for both settings to gain a better appreciation of the challenges faced within each setting. For example, many LTCH physicians indicated that hospitals need to gain a better understanding of the LTC setting and its limitations (e.g., context of LTC, acuity of residents and level of clinical care that can be provided, and difficulties accessing outpatient tests).

Further, survey respondents indicated that guidance is also needed for LTCH staff including physicians regarding goals of care (e.g., setting, updating, managing expectations, etc.) in the context of COVID-19 and in the management of residents with wandering behaviours. Standards related to these areas and to guide all aspects of COVID-19 care would be helpful in LTCHs. These standards could be developed with the input of those with expertise in the care of the elderly, infectious diseases, and ethical decision-making, among others.

Through the OMA survey, we know that only 64% of respondents felt that their LTC facility had proper access to specialized physician care, either in person or through virtual consults. Respondents indicated that residents in their facilities would have benefited from having increased access to geriatric medicine, internal medicine, infectious disease specialists, psychiatry, and palliative care. Physicians indicated that to help improve the medical management in the home, LTCHs need to gain better access to specialized care and that improved connections between specialists and the primary care providers can be enhanced. This can be accomplished in several ways including: better connections with specialists who have LTC knowledge; enhanced communication and connections between primary care providers and specialists including via integrated EMRs and the use of virtual models, increased education about the LTC setting and residents; and increased presence of onsite specialists.

Recommendation: The province should strike a working group which includes key stakeholders, including the OMA to develop a set of recommendations that specifically looks at ways to enhance access and improve connections between LTCHs and specialized care.

Recommendation: LTC stakeholders including the OMA, Ontario Long-Term Care Clinicians (OLTCC), OLTCA (Ontario Long Term Care Association), OHA (Ontario Hospital Association) and other stakeholders should collaborate to identify and modernize educational programs and opportunities to enhance the knowledge and understanding of:

- LTCHs (e.g., context and clinical issues) for non-LTCH physicians / hospital physicians; and
- Challenges in hospital settings for non-hospital / LTCH physicians.

Recommendation: Funding should be provided to support the development and implementation of these educational programs and opportunities.

Recommendation: Hospital transfers should occur when consistent with resident goals of care and when the home cannot meet the needs of the resident.

Recommendation: The province should strike a time sensitive taskforce with key associations and stakeholders to develop guidance documents and protocols to streamline and standardize procedures to address gaps in the transfer and repatriation process of LTCH residents across the province that provides for regional and local differences.

Recommendation: LTCHs should have the necessary number of trained staff to support residents at home. Where possible, homes should have access to medical equipment and urgent care services (e.g., access to labs, IVs, x-rays and medications in LTCH) to meet resident needs and the required physical space to provide care (e.g., single rooms to meet quarantine requirements).

Recommendation: LTCHs must have continued access to ample supply of PPE.

Recommendation: Improve the physical space in homes to allow for quarantine of positive residents and to permit residents to be repatriated back to their home post-discharge.

Infection Prevention and Control

Infection Prevention and Control (IPAC) practices and procedures play a critical role in preventing or reducing the transmission of an infectious disease such as COVID-19. When applied properly and consistently, IPAC measures can provide significant protection for healthcare workers, patients, residents, and visitors. According to the OMA survey, only 65% of respondents noted that IPAC measures were in place prior to the pandemic.

According to the Long-Term Care Homes Act, 2007, every licensee of a long-term care home shall ensure that there is an IPAC program and that it includes daily monitoring to detect the presence of infection in residents and measures to prevent transmission. While these programs are vital, there is ambiguity in terms of what is required. The OMA's survey found that just over half of respondents felt that staff at their LTC home has adequate IPAC training. Moreover, there is no clear guidance on who is accountable for the leadership role for developing the program and which authority should oversee IPAC activities within LTC homes. The OMA survey found that the majority of physicians would support a triad of leadership shared among the

Medical Director, Director of Care and Administrator or a dedicated IPAC practitioner. This group should work together at each home to develop the model.

Through the OMA survey, it is clear that logistical IPAC guidance is needed to effectively manage and prevent COVID-19 outbreaks in LTC Homes, this could also be applied to other infectious disease outbreaks beyond COVID-19. For example, respondents pointed to the need for direction on when and how to separate and cohort infected residents from other residents as well as how many staff may be best assigned specifically to infected residents. Respondents also reported that only 60% of LTC staff were trained in donning and doffing of PPE and only 52% reported a sufficient supply of PPE for staff. Additional training and guidance must be clear and consistent across the sector and adequate PPE supplies must be maintained.

Finally, the physical configuration and setup of LTC homes has played a clear role in the ability for infection to spread throughout a home. Outdated physical layouts and mechanics of homes along with increased demand on space have meant that many LTC homes are unable to offer residents private or semi-private rooms or bathrooms. This coupled with the inability to isolate symptomatic patients have made managing an outbreak difficult and left resident vulnerable to transmission when a home is in outbreak. Further, many LTCHs do not have updated air filtration systems due to the age of the buildings, these systems can help to reduce the spread of COVID-19.

Recommendation: The province should enhance the mandatory training requirements for IPAC so that all LTCH staff are trained on an annual basis and that the mandated training is clear and comprehensive (e.g., include donning and doffing of PPE).

Recommendation: Clear leadership, comprised of a triad of leadership from the LTC home (Medical Director, Director of Care and Administrator) must be established for IPAC programs within LTCHs.

Recommendation: The province should provide clear and consistent logistical IPAC guidance for LTC facilities (e.g., guidance for separating/cohorting infected residents, assigning staff to infected residents, etc.)

Recommendation: Each LTCH working with the province should ensure that they have adequate supply of PPE available for all staff.

Recommendation: Dedicated rooms and/ or areas to quarantine infected residents must be identified or opened in each long-term care home.

Recommendation: The province must increase the number of private rooms and bathrooms available for all LTC residents to help reduce the incidence of future infectious disease outbreaks.

Recommendation: Long-term care homes should improve their HVAC and air filtration systems.

Health Human Resources

Medical Care Delivery:

The COVID-19 pandemic presented challenges in providing medical care. Unclear and mixed guidance from public health and regulatory authorities were a reality as the situation rapidly unfolded. The unprecedented nature of the pandemic resulted in a rapid expansion in the use of virtual tools to deliver care, while also strengthening the resiliency and safety of the health workforce.

There is a concerning narrative that has emerged that physicians were not delivering care at LTC homes during the onset of the pandemic. It is important to clarify that physicians hold their duty to care as being paramount and care continued to be provided, albeit possibly in ways in which the sector was not accustomed to. Approximately 80% of survey respondents indicated that they provided some element of in-person care. In most situations virtual care was the most appropriate modality for attending residents for several reasons including: safety concerns; a desire to prevent possible disease transmission across multiple homes (close to half of LTC physicians deliver medical care across 2+ homes); advice given by regulatory and public health authorities and being refused entry into the home. Physicians felt confident that they were able to provide the necessary coverage to meet resident needs virtually.

Recommendation: Revise Medical Director and attending physician contracts collaboratively with OMA and OLTCC to reflect requirements including their role in the home during an outbreak based on local resources, geography, and skills of attending physicians. Components of this can include:

- Daily communications⁴ with Medical Director;
- Daily communications with attending physicians of residents who have COVID when it is clinically indicated;
- Procedures guiding the Medical Director for how and when to escalate medical services;
- When deemed necessary by the Medical Director regular virtual and/or in person assessments.

Recommendation: Collaborate with stakeholders on developing guidance documents on escalation of medical services and best practices during COVID-19 outbreaks.

Recommendation: Enable peer support / coaching related to the delivery of medical services in the home.

Physician Role:

⁴ Communication can occur in ways that best meet the needs of the home (e.g., text, email, phone call, video chat or in-person when needed)

The role of the physician in LTC is challenging at the best of times. The complexity of resident needs has risen dramatically, while the resources and support structures for physicians have remained stagnant.

The Medical Director has a critical role, as spelled out in legislation, to oversee the delivery of medical care in the home. A clearly defined and consistently understood role description with expectations is needed. This can be developed in collaboration with government and stakeholders. The OMA has a central role to play as the representative body for physicians in Ontario.

It is worth noting the limited support that is currently available for Medical Directors in fulfilling their role. Medical Directors are motivated by a strong desire to care for older persons and others who require long-term care. Retention and recruitment is influenced by several factors, including a healthy work environment. We know that the remuneration structure for Medical Directors is outdated and often relies on the good gestures of doctors. Fair compensation that corresponds with the duties of the role and the time spent delivering medical leadership is needed.

The step forward is not just about adequate funding. It is also about enabling Medical Directors through proper training, education, and mentoring. There is a desire among Medical Directors and those aspiring towards the role to ensure that they hold the knowledge and skill needed to excel. Areas of educational interest to members include: the Medical Director Course offered through the Ontario Long-Term Care Clinicians, physician leadership education and infection prevention and control practices.

Attending physicians also provide vital medical care delivery and leadership within homes. They are available 24/7 to provide care and/or medical guidance to staff. These physicians continue to report challenges with their remuneration and often being stretched thin as they balance multiple clinical duties.

Physicians are interested in a collaborative model where care can be shared between Nurse Practitioners (NP) and physicians. Doing so would allow each provider to maximize their role based on their knowledge, skill, and scope of practice. The focus should be on improving capacity in LTC homes and we do not envision a substitution model.

Recommendation: Advance the education and training of LTC physicians by requiring and financially supporting their completion of:

 OLTCC's course to educate Medical Directors. This course could be used (including as a virtual offering) as means for Medical Directors to meet and understand LTC medical

⁵ https://www.oltcc.ca/new-page

- services requirements. Renewal requirements of those services should be included in considerations.
- OLTCC's course to educate attending physicians in LTC. This course or equivalent education requirements could be incorporated into the attending physician contract.

Recommendation: Create a mentorship network by leveraging existing channels (e.g., OMA, OLTCC, etc.) wherever possible for Medical Directors to connect and share best practices.

Recommendation: The government should work with the OMA to modernize the renumeration for both Medical Directors and attending physicians to ensure smaller or remote homes are able to ensure quality medical services.

Recommendation: Expand the presence of nurse practitioners in LTC care using a collaborative model with physicians.

Non-Physician Staffing:

We know that the LTC sector has experienced staffing challenges before the onset of the pandemic. These challenges make it difficult to provide quality resident care and can lead to burnout among staff. Workload, and the complexity of work are the main reasons members feel there is a challenge recruiting staff to the sector. There is a clear desire among members to increase the availability of nursing care and personal support services, while also creating a dedicated infection prevention and control practitioner position. The latter should require a minimum knowledge-base and preferably certification in infection prevention and control.

The Government of Ontario has made a commitment to provide each resident with an average daily direct care of four hours a day per resident by 2024/25. This commitment is laudable, however, work towards this goal should be accelerated. At the same time, a comprehensive and actionable health human resource strategy with appropriate support for the LTC sector is needed urgently. Working in LTC is already a highly rewarding experience with many skilled practitioners in place. However, the aim of the HHR strategy will be to prioritize the LTC sector as an employment area of choice and ensure that it is viewed as a desirable place to grow one's career.

Recommendation: Accelerate the target completion of the four hour/day care commitment to 2022/23. The focus should be on expanding access to personal support services and direct nursing care.

Recommendation: Immediately launch an actionable health human resource strategy with support for the LTC sector. The goal will be to improve the profile of LTC practice and making it a destination of choice for one's career growth.

Recommendation: Fund the creation of dedicated infection control and prevention positions at a rate of one FTE per medium/large homes and 0.5FTE for smaller homes.

Long-Term and Healthcare System Issues

As part of the survey, respondents were asked to share information about their experience related to the LTC admissions process, including challenges and gaps, with the goal of identifying opportunities to improve some of the broader health and system issues related to LTC residents. In addition, respondents also commented on end-of-life care and advanced care planning [including but not limited to "Allow Natural Death (AND) / Do Not Resuscitate (DNR)" code status orders] and what additional supports are needed.

LTC Admissions:

As part of the admissions process under the LTCHA (2007), information is collected by LHIN / care coordinators to assess eligibility for LTCH placement and that information is provided to the home. The nursing staff also collects information when the resident enters the home to inform the resident plan of care. Physicians indicated that the information provided to the home by care coordinators is typically lengthy and that the medical information it contains is often out of date (e.g., medical history incomplete and medication lists are not current, active problem lists are not included, and no or incomplete immunization records, etc.). This can lead to greater administrative burden for all staff and potential confusion, especially if a medical decision needs to be made quickly.

Despite the "excessive" paperwork, often missed is pertinent information on the residents' needs, and whether their needs can be met by a particular home (i.e., a resident with high needs or behavioural issues whose needs cannot be met by the home due to staffing issues or lack of appropriate room/space to safely care for resident.) Considerable time is spent by the homes' staff deciphering the information and identifying and gathering missing information. Survey respondents also stated that the lack of beds and long waiting lists in LTCHs, and pressures placed by hospitals on LTCHs to admit patients further exacerbates issues related to admission.

Recommendation: Improve the admissions process by streamlining the amount and nature of the information that is collected and shared with the home. Modify the process to ensure relevant and recent medical information is included to support the appropriate placement of residents into LTCHs and to prevent the placement of residents into homes that are not suited to care for these residents.

Recommendation: The provincial government continue to fund and build new LTCHs and increase funding to existing LTCHs to address challenges related to the physical plant and staffing, and reduce wait times to meet the diverse needs of current and future residents of LTCHs.

LTC Support - Advanced Care Planning and End-of-Life Care:

The COVID-19 pandemic revealed the importance of advanced care planning (including AND / DNR code status orders) and end-of-life care in LTCHs given the significant loss of life in this setting. Residents, and/or their substitute decision makers (SDMs) and resident families need to have a shared understanding of the resident's goals of care and end-of-life wishes. This is extremely important to prevent transfers to hospitals that are not aligned with goals of care and to help ensure resident wishes are respected. It will also ensure those with the goal of life prolonging treatment are not prevented from being transferred to hospital when their life is threatened.

Survey respondents also stressed the importance of advanced care planning happening on / soon after admission to LTCHs. Most respondents to the survey indicated that their LTC facility is well equipped to support advanced care planning and end-of-life care. Of those that felt that their home was not well equipped, almost half stated that the home needed improvements related to providing end of life symptom management, providing advance care planning, needing resident goals of care, and having serious conversations about end-of-life.

Recommendation: LTCHs should ensure that advanced care planning (including and beyond code status) takes place within 6 weeks of admission into LTCHs and that residents, SDMs, families are included in the discussions and are empowered to understand their options regarding goals of care and end of life wishes. For those at higher risk of dying or being hospitalized based on predictive scores already completed at all nursing homes these conversations should happen within 3 weeks of admission. Attending physicians and nurse practitioners can lead and support this process.

Recommendation: All LTCHs should assess the competency of their staff and train staff to ensure they are appropriately equipped to support advanced care planning and provision of end-of-life care in accordance with their roles and responsibilities. This training should be refreshed on an annual basis.

Summary & Conclusion

COVID-19 has shown us the need for change in LTC. Recommendations, including clear and consistent guidance to public health, access to specialized care, IPAC, health human resources and long-term and healthcare system issues are articulated in this submission.

While not in the scope of the OMA survey, it is worth acknowledging that the provincial and sector response was rapid; however, it created several unintended consequences. For example, in an effort to protect residents from COVID-19 and to reduce outbreak transmission, visitors were not permitted to enter LTCHs. This left residents isolated and many in fear, and vulnerable to depression and worsening dementia. It also created a level of mistrust between staff, residents, families and the public. However, the decision to permit essential visitors to reenter LTCHs after the first wave, and as recommended by the Commission, was a significant lesson learned and one that the OMA supported in its interim recommendations⁶.

As Ontario's Long-Term Care COVID-19 Commission moves towards its final report it is critical that it continue to build on these lessons learned with both front-line and system level recommendations. The OMA's recommendations in this second report are intended to inform the Commission's work and to help address many of the long-standing system issues amplified through this pandemic. The OMA is committed to working collaboratively and to sharing information with the Commission, government, and other key stakeholders to support the implementation of these recommendations.

⁶ https://content.oma.org/wp-content/uploads/interim-guidance-ltc-covid-19-commission-october-2020.pdf

Appendix A – Roles and Responsibilities of Physicians in Long-Term Care

Role	Responsibility	
Medical Director	 Legislated role that requires every LTC home to have a Medical Director who is a physician. The role as defined by legislation and regulation includes: advising on matters relating to medical care in the LTC home; consulting with the Director of Nursing and Personal Care and other health professionals working in the LTC home; developing, implementing, monitoring and evaluating medical services; advising on clinical policies and procedures, where appropriate; communicating expectations to attending physicians and registered nurses in the extended class; addressing issues relating to resident care, after-hours coverage and on-call coverage; meeting at least quarterly with the Administrator and Director of Nursing and Personal Care to evaluate the effectiveness of the medication management system in the home and to recommend any changes necessary to improve the system; and participating in interdisciplinary committees and quality improvement activities. 	
Attending Physician	The attending physician typically has a contractual relationship with LTC homes and accountability to the Medical Director to deliver medical care to residents as the most responsible physician. These physicians utilize their in-depth medical training to provide a broad spectrum of medical services including (but not limited to) ongoing physical, mental and emotional assessments; medication prescribing and ongoing management; ordering and interpreting diagnostic testing; developing and informing care plans; responding to emerging medical issues and providing comprehensive palliative care leading up to and including the last days of life. Physicians work with residents, staff and families to develop comprehensive care plans that are regularly monitored and evaluated. Physicians support and collaborate with LTC home staff in the delivery of care while also providing education and mentorship opportunities.	
	Legislated requirements of the attending physician include: Every LTC home shall ensure that either a physician or a registered nurse in the extended class: • conducts a physical examination of each resident upon admission and an annual physical examination annually thereafter, and produces a written report of the findings of the examination; • attends regularly at the home to provide services, including assessments; • reassesses each resident's drug regime at least quarterly; and • participates in the provision of after-hours coverage and on-call coverage.	
Consultant Physician	Specialist physicians (e.g. geriatrician, geriatric psychiatrist, care of the elderly physician, ophthalmologist, otolaryngologist, dermatologist) who, at the request of the physician and/or NP, deliver highly skilled and specialized areas of medicine, depending upon the unique needs of a residents.	